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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Dirk Lappe

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EXAMINER

TON, ANTHONY T

ART UNIT

PAPER NUMBER

2661

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/744,084	Applicant(s) LAPPE ET AL.	
	Examiner Anthony T Ton	Art Unit 2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-13, 14/8, 14/11, 15/8, 15/10, 15/11, 15/13, 16/8, 16/11 and 17-22 (total = 20 claims) is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8, 9, 11, 12, 14/8, 14/11, 15/8, 15/11, 16/8 and 16/11 is/are rejected.
- 7) ☒ Claim(s) 10, 13, 15/10, 15/13 and 17-22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. PCT/DE99/02245.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>01/19/01</u> . | 6) <input type="checkbox"/> Other: _____ |



DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:
 - a) Term “the first channel encoder **40**” in page 13 line 4 is improper with the drawing.
Examiner suggests changing this term to “the first channel encoder **35**”.
 - b) Term “**the control unit 65**” and term “**the second mobile station 5**” in page 14 lines 3-4 are improper since according to the drawing, there is no any such a “the control unit 65” in such a “the second mobile station 5”.

Examiner suggests changing the term “**the second mobile station 5**” to “**the intermediary station 15**” to be consistent with the drawing.

Appropriate correction is required.

Claim Objections

2. **Claims 8 and 11** are objected to because of the following informalities:
 - a) **In Claim 1**: The limitation “**the useful data channel coded**” in line 7 is improper with the limitation “channel encodes the useful data” recited in line 4.
Examiner suggests changing this term to “**the useful data channel encoded**”.
 - b) **In Claim 1**: The limitation “the second step **present** in the first bit stream” in lines 7-8 is improper.

Examiner suggests changing this term to “the second step **presented** in the first bit stream”.

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c) **In Claim 1:** The limitation “**the useful data channel coded**” in line 15 is improper with the limitation “the useful data are channel encoded” recited in lines 9-10.

Examiner suggests changing this term to “**the useful data channel encoded**”.

d) **In Claim 11:** The limitation “**the useful data coded**” in line 7 is improper with the limitation “encodes the useful data” recited in line 4.

Examiner suggests changing this term to “**the useful data encoded**”.

e) **In Claim 11:** The limitation “the second step **present** in the first bit stream” in lines 7-8 is improper.

Examiner suggests changing this term to “the second step **presented** in the first bit stream”.

f) **In Claim 11:** The limitation “**the useful data coded**” in line 15 is improper with the limitation “the useful data are **channel** encoded” recited in lines 9-10.

Examiner suggests changing this term to “**the useful data encoded**”.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

4. **Claims 8-22** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a) **Claim 1** and **Claim 11** recite the limitation “**the useful data**” in line 4. Examiner believes that this limitation is the same as “useful data” in line 3. However, the “useful **digital** data” recited in line 1 is not quite sure. Is this limitation “**the useful data**” in line 4 also the same as the “useful **digital** data” in the line 1? There is insufficient antecedent basis for this limitation in the claims.

b) **Claim 11** recites the limitation “the useful data **coded** in the intermediary station **are decoded** by the second mobile station” in lines 15-16. However, in the lines 9-10 of the claim, the Applicant claimed “the useful data are **channel encoded** by the intermediary station”. If data were **channel encoded** at a transmitter, such data would be **channel decoded** at a receiver, it should not **be coded** at the receiver. Therefore, there is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 8, 9, 12, 14/8, 15/8 and 16/8** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Fulkasawa et al.** (US Patent No. **5,533,012**) (hereinafter referred to as Fulkasawa) in view of **Calderbank** (US Patent No. **5,377,194**) and **Chambers** (US Patent No. **6,256,497**).

a) **In Regarding to Claim 8: Fulkasawa disclosed** a method for transmitting useful digital data from a first mobile station to a second mobile station, in which for transmission in a first telecommunication network (*see Fig.1*),

the first mobile station **audio** encodes useful data in a first step and then channel encodes the useful data in a second step (*see Fig.1: 200 (the first mobile station), audio encoder 211, and channel encoder 212*);

the useful data encoded in the first and second steps are transmitted in the form of a first bit stream to an intermediary station via a transmission channel of the first telecommunication network (*see Fig.1: 100 (it is considered as an intermediary station because it functions like such an intermediary station); col.5 lines 4-6; and col.2 lines 3-5: whereby the CDMA is corresponding to the first telecommunication network*).

the useful data channel encoded in the second step presented in the first bit stream are channel decoded by the intermediary station (*see Fig.1: channel decoder 116*);

for transmission in a second telecommunication network,

the useful data are channel encoded by the intermediary station (*see Fig.1: channel encoder 112*) and the useful data thus channel encoded are transmitted to a second mobile station (*see Fig.1: 200 and col.7 lines 18-21*) via **a transmission channel of the second telecommunication network**,

signalization data are transmitted from the intermediary station to the second mobile station (*see col.19 line 62 – co.20 line 3: control signal*),

said signalization data containing information regarding the type of encoding of the useful data in the first step (*see col.25 lines 21-24*),

the useful data channel encoded in the intermediary station are channel decoded by the second mobile station (*see Fig.1: channel decoder 215*), and then

the useful data channel decoded by the second mobile station are **audio** decoded by the second mobile station, according to the signalization data received by the second mobile station (*see Fig.1: audio decoder 216 and col.25 lines 21-24*).

Fulkasawa failed to explicitly disclose the useful data are **source** encoded and then **source** decoded; and the encoded data are transmitted to the second mobile station **via a transmission channel of the second telecommunication network**.

Calderbank clearly disclosed such useful data are source encoded and then source decoded (*see source encoder 310 in Fig.3, and source decoder 410 in Fig.7*).

At the time of the invention, it would be obvious to a person of ordinary skill in the art to combine such useful data are source encoded and source decoded, as taught by Calderbank with Fulkasawa, so that a multiple source data can be provided by a source encoder and a source decoder of a transmitting and receiving apparatus in a digital communication network. The motivation for doing so would have been to provide HDTV images can be provided by the network of Fulkasawa. Therefore, it would have been obvious to combine Calderbank with Fulkasawa in the invention as specified in the claim; and

Chambers clearly disclosed such encoded data are transmitted to the second mobile station via a transmission channel of the second telecommunication network (*see Fig1: UT1, radio link 11, BS 10, PLMN 9, GW1, SAN 2, satellite 3b and UT2; and see col.3 lines 30-43. Whereby the UT1 communicates with UT2 via the PLMN 9 (the first network) and satellite 3b (the second network)*).

At the time of the invention, it would be obvious to a person of ordinary skill in the art to combine such encoded data are transmitted to the second mobile station via a transmission channel of the second telecommunication network, as taught by Chambers with Fulkasawa, so that digital data can be transmitted and received in different communications networks. The motivation for doing so would have been to provide a system that has the advantage of no significant modification to be required to the architecture of the HLR of an already existing public local mobile network (*see Chambers, col.10 lines 1-10*). Therefore, it would have been obvious to combine Chambers with Fulkasawa in the invention as specified in the claim.

b) **In Regarding to Claim 9: Fulkasawa disclosed** all aspects of this claim as set forth in claim 8.

Fulkasawa failed to explicitly disclose wherein the useful data encoded in the first and second steps are transmitted in the form of said first bit stream to said intermediary station **via at least one third telecommunication network**.

Chambers clearly disclosed such useful data encoded in the first and second steps are transmitted in the form of said first bit stream to said intermediary station **via at least one third telecommunication network** (*see Fig1: PLMN (1st network), SAN1 (2nd network) and SAN2 (the third telecommunication network)*).

At the time of the invention, it would be obvious to a person of ordinary skill in the art to combine such useful data encoded in the first and second steps are transmitted in the form of said first bit stream to said intermediary station via at least one third telecommunication network, as taught by Chambers with Fulkasawa, so that digital data can be transmitted and received in different communications networks. The motivation for doing so would have been to provide a

system that has the advantage of no significant modification to be required to the architecture of the HLR of an already existing public local mobile network (*see Chambers, col.10 lines 1-10*). Therefore, it would have been obvious to combine Chambers with Fulkasawa in the invention as specified in the claim.

c) **In Regarding to Claim 14/8: Fulkasawa further disclosed** method according to claim 8, wherein the signalization data are transmitted from said intermediary station to said second mobile station singly or multiply via a separate control channel (*see col.5 lines 24-36*).

d) **In Regarding to Claim 15/8: Fulkasawa further disclosed** method according to claim 8, further comprising transmitting a telephone number of the first mobile station along with said signalization data containing said information regarding said type of encoding of the useful data in the first step (*see col.7 lines 18-25*).

e) **In Regarding to Claim 16/8: Fulkasawa further disclosed** method according to claim 8, wherein said useful data comprises at least one of video data, audio data, text data and voice data (*see col.5 lines 12-23*).

7. **Claims 11, 12, 14/11, 15/11 and 16/11** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Fulkasawa et al.** (US Patent No. **5,533,012**) in view of **Chambers** (US Patent No. **6,256,497**).

a) **In Regarding to Claims 11 and 12:** the only differences between these two claims and claims 8 and 9 are **source** encoder and **source** decoder (i.e. the claims 11 and 12 only teach encoder and decoder). **However**, these encoder and decoder are disclosed by Fulkasawa as audio encoder and audio decoder as described above in the claim 8. Therefore, these two claims

would be rejected in the same reason of the claims 8 and 9 as being unpatentable over Fulkasawa and in view of Chambers.

b) **In Regarding to Claims 14/11, 15/11 and 16/11:** the subject matters of these claims are the same as that of claims 14/8, 15/8 and 16/8, respectively, **except for the source encoder and source decoder** as described above. Therefore, these claims would be rejected in the same reasons of claims 14/8, 15/8 and 16/8 as being unpatentable over Fulkasawa and in view of Chambers.

8. **Claim 8** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Fulkasawa et al.** (US Patent No. **5,533,012**) and **Calderbank** (US Patent No. **5,377,194**), in view of **Poppen** (EP Patent No. **EP 0,849,965A**) (the **IDS** provided by the Applicant).

Both Fulkasawa and Calderbank disclosed all aspects of this claim as set forth in paragraph 6 above, **except for** the encoded data are transmitted to the second mobile station **via a transmission channel of the second telecommunication network.**

Poppen clearly disclosed such encoded data are transmitted to the second mobile station via a transmission channel of the second telecommunication network (*see Fig.2: the cordless telephone 5 and the DCS/GSM mobile radio telephone 1 communicate to each other via DECT and DCS/GSM (second telecommunication network)*).

At the time of the invention, it would be obvious to a person of ordinary skill in the art to combine such encoded data are transmitted to the second mobile station via a transmission channel of the second telecommunication network, as taught by Poppen with Fulkasawa, so that digital data can be transmitted and received in different communications networks. The

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motivation for doing so would have been to allow cost-effective utilization of both stationary and mobile telephone networks. Therefore, it would have been obvious to combine Poppen with Fulkasawa in the invention as specified in the claims.

9. **Claim 11** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Fulkasawa et al.** (US Patent No. **5,533,012**) in view of **Poppen** (EP Patent No. **EP 0,849,965A**).

Fulkasawa disclosed all subject matters of this claim as set forth in paragraph 6 above, **except for** the encoded data are transmitted to the second mobile station **via a transmission channel of the second telecommunication network**.

However, the only differences between the claim 11 and claim 8 are **source** encoder and **source** decoder. These encoder and decoder are disclosed by Fulkasawa as audio encoder and audio decoder as described in the claim 8 in paragraph 6 above. Therefore, this claim would be rejected in the same reason of claim 8 as being unpatentable over Fulkasawa and in view of Poppen.

Allowable Subject Matter

10. **Claims 10, 13, 15/10, 15/13 and 17-22** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Examiner Information

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony T Ton whose telephone number is 703-305-8956. The examiner can normally be reached on M-F: 8:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas W Olms can be reached on 703-305-4703. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ATT
8/4/2004


Phirin Sam
8/5/04